EMERGENCY PHYSICIAN COMMUNICATION STYLE AND CAREER SATISFACTION: IS THERE A CORRELATION?

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Thesis Prepared for the Degree of

MASTER OF ARTS

UNIVERSITY OF NORTH TEXAS

December 2002

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McEwen, Janet S., *Emergency Physician Communication Style and Career Satisfaction: Is There a Correlation?,* Master of Arts (Communication Studies) December 2002, 79 pp., 10 tables, references, 84 titles.

The correlation between social style and career satisfaction among emergency physicians was investigated. An e-mail survey was sent to a random sample of 1,000 members of the American College of Emergency Physicians in practice for at least three years; 707 had valid e-mail addresses. A twenty-item behavioral style survey instrument and a five-item career satisfaction scale were used. The study incorporated prenotification and reminder e-mails. Valid responses were obtained from 329 physicians (46.5%). No correlation was shown between social style and career satisfaction. Problems with both survey instruments were discovered. Survey respondents were unhappy with their careers, with an average satisfaction of 4.03, 1 being *very satisfied*, 5 *very dissatisfied*. Areas for future study include redoing the study using different survey instruments.

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CHAPTER 1

INTRODUCTION

An average of 108 million patients visit U.S. emergency departments each year, presented for problems ranging from colds and ear infections to gunshot wounds, unintentional amputations, and heart attacks (McCaig & Ly, 2002). Patients are treated by an estimated 32,000 emergency physicians (American College of Emergency Physicians, 2000a; Moorhead et al., 1998). The work is very stressful; emergency physicians believe the number one issue facing the specialty is personal wellness, including burnout, stress, and conflicts (American College of Emergency Physicians, 2000b; K. N. Hall, Wakeman, Levy, & Khoury, 1992). The burnout may lead to a shortage of physicians trained to treat these patients, with estimates of expected five-year retirement rates ranging from 7 to 26% (American College of Emergency Physicians, 2000b; Doan-Wiggins, Zun, Cooper, Meyers, & Chen, 1995; Gallery, Whitley, Klonis, Anzinger, & Revicki, 1992; Reinhart, Munger, & Rund, 1999). This study focuses on identifying the personality style of the emergency physician and determining whether style can predict satisfaction with the career. By linking style with satisfaction, it may be possible to encourage physicians with a certain personality to consider a career in emergency medicine, thus spending training resources on those who are most likely to stay in the specialty. This national study of practicing emergency physicians will measure both style and career satisfaction along with individual demographic characteristics.

Study Rationale

Emergency medicine was recognized in 1979 by the American Board of Medical Specialties, meaning it is an "official" specialty. It also has a voting seat in the House of Delegates of the American Medical Association. There are 122 allopathic residency training programs accredited by the American Council on Graduate Medical Education that graduate approximately 1,300 new specialists per year (American College of Emergency Physicians, 2000a).

Not surprising for a relatively new specialty, emergency medicine practitioners are a young and fairly homogenous group. The average emergency physician is a married white male, age 42, who works 43 hours per week (American College of Emergency Physicians, 2000b). Fifty-four percent of the physicians working in U. S. emergency departments are board certified in emergency medicine. Many of the physicians who are not trained or certified in this particular specialty came to emergency medicine after training and certifying in other specialties, notably internal medicine, pediatrics, or family practice (Moorhead et al., 1998). To become board certified in emergency medicine, physicians must complete a three-or four-year residency-training program after graduating from medical school, and pass oral and written examinations administered by a separate certifying board.

Emergency medicine is a popular residency (National Resident Matching Program, 2000). The television show *ER* has helped increase the awareness of the specialty and its attraction as a fast-paced job with all work completed during the shift, no calls from patients interrupting sleep at home, and no office staff to hire and train.

Although an attractive specialty for several reasons, emergency medicine by nature is a stressful profession. Violence regularly occurs in hospital emergency departments, with weapons drawn and verbal threats creating an uncomfortable environment. Lavoie, Carter, Danzl, and Berg (1988) reported on a study of 127 large teaching hospitals with emergency departments. Over 80% of those surveyed stated that, within the previous five years, an emergency department staff member had been injured by a violent patient; in 7% of those cases an injury resulted in death. Furthermore, 43% of respondents reported attacks on physicians or nurses at least once a month.

Emergency departments are open every day, all day and night, so there is an emergency physician on duty in the hospital at all times. Few emergency physicians work traditional shifts; e.g., 7:00 a.m. until 3:00 p.m. or 3:00 p.m. until 11:00 p.m. Instead, they rotate, working perhaps three day shifts, four night shifts, and six afternoon shifts per month. Working afternoon shifts means the physicians miss dinner and bedtime with their families; working nights means they do not sleep with their partners. This type of shift work leads to sleep disruption, along with potential isolation from families. According to a survey of 223 Canadian physicians, shift work was the top reason emergency physicians left the specialty (Lloyd, Streiner, & Shannon, 1998).

Practice conditions in emergency departments have gotten worse. The millennium has seen an increasing shortage of hospital workers, more crowded emergency departments, and increases in the premiums of malpractice insurance, forcing one malpractice insurer to stop writing policies to cover physicians ("Health Care Worker Shortage Getting Worse," 2002; "ACEP Looking for Solutions," 2002; "Dramatic Rise in

Malpractice Rates," 2002; "ACEP Continues to Fight 5.4% Cut," 2002). The decrease in reimbursement and increase in demand for services is bound to take its toll on the emergency physician.

Home-to-work stresses (lack of emotional or practical support outside of work, unstable home life, and lack of career support received by an intimate partner) may relate to a perceived lack of individual control and low self-esteem (Swanson, Power, & Simpson, 1998). Emergency physicians, with their lack of consistent availability to their families, may suffer from a significant amount of home-to-work stresses. Given the stressful nature of emergency medicine, some question whether burnout will force a large number of emergency physicians to retire early, and, coupled with a cutback in training funds, lead to a shortage of emergency physicians to take care of patients (Gallery et al., 1992; Keller & Koenig, 1989).

Many articles and books focusing on stress and burnout mention that the person's reaction to the stress is more important than the stress itself (Koltonow, 1989; Keller & Koenig, 1989; Selye, 1974). Coping mechanisms include exercise, having close friends, taking action to change the stressful situation, seeing humor in the situation, or using food, alcohol, or medication to dull the effect of stress (American College of Emergency Physicians, 2000b; Doan-Wiggins et al., 1995; Keller & Koenig). Leaders in the specialty encourage additional research on stress alleviators (Taliaferro, 1989). It may be possible that some emergency physicians thrive on the stress and, rather than being depleted by the experience, are energized.

An international study showed generally moderate stress and depression of

emergency physicians, yet a disproportionate number of emergency physicians scoring relatively high on depression and stress scales (Whitley et al., 1994). Research is called for to study those in the specialty with strong stress coping skills (Keller & Koenig, 1989).

Unlike other specialists, the patients encountered by emergency physicians are constantly changing. Internists see patients with systemic diseases, obstetricians see pregnant patients, and dermatologists see patients with skin conditions. Emergency physicians treat the entire spectrum of health care problems (McCaig & Ly, 2002) and are required by law to evaluate and stabilize all patients who present to the emergency department (42 U.S.C. §1395dd).

The patients and their diseases are constantly changing, and so is the way patients communicate with physicians. Beisecker & Beisecker (1993) state that traditionally, physicians worked autonomously and paternalistically, taking complete control of patients' health care. Changes in health care, they state, have led to consumerism, where the patient is responsible for his or her care. Consumerism implies patient rights and at least equal responsibility with the physician in health care; paternalism implies complete physician responsibility.

Good physician communication skills are important elements in determining patient satisfaction (Carmel & Glick, 1996; Rydman et al., 1997; Sun et al., 2000; Thompson, Yarnold, Williams, & Adams, 1996) and satisfaction of other health care workers (Anderson, 1996; Wheeless, Wheeless, & Riffle, 1989). There is also evidence that physician personality may even affect health care costs (Ornstein, Markert, Johnson,

Rust & Afrin, 1988; Panacek, Pali, & Roland, 1996). Personality is a well-studied field, replete with articles describing populations with different "types," identified by administration of the Myers-Briggs Type Indicator® personality test (© CPP, Inc., Palo Alto, CA, www.cpp.com) (Hardigan & Cohen, 1998). Although there are longitudinal studies of medical students, and varying studies about different specialties (Howard, 1992; Rezler & Kalishman, 1989), research concerning emergency physician personality type is lacking or practically nonexistent. One study has been published concerning emergency physician learning styles (Nowicki & Dufel, 1999). Considering that the specialty touches over 100 million patients per year, it is important to study the emergency physician population.

Hardigan and Cohen (1998) call for research in personality and career satisfaction among health care workers, with the goal of screening for personality style as a tool for admission to a residency-training program. By understanding who is happiest in the specialty, it may be possible to increase longevity and help ensure the right people are trained as emergency physicians. With the pressure to freeze or decrease funding for these advanced training programs (Garcia, 1999), it is more crucial than ever that those limited dollars be spent on persons with the highest likelihood of staying in the specialty. Having enough emergency physicians in place is a critical element for effectively and efficiently treatment of 100 million patients per year. This project proposes to study emergency physician communication/personality style and career satisfaction, with the goal of determining whether there is a particular style that is more satisfied than others with the profession. By determining whether a particular style is predictive of career satisfaction,

the instrument could be a screening tool given to physicians who wish to enter emergency medicine residency training programs. Individuals with the least likely predictions of satisfaction could receive additional career counseling before making their final specialty selections.

CHAPTER 2

REVIEW OF THE LITERATURE

Physicians as a whole are a fairly well researched population, with studies on test ordering, job satisfaction, and detachment from patients, to name a few areas. For the purpose of this study, the literature is divided into three main subject areas: a) physician-patient communication, b) job satisfaction, and c) communication or personality type. The third area is the least studied, with no published research specific to emergency medicine.

Physician-Patient Communication

Several studies indicated that patients want to be treated by physicians who are empathetic, who allow them to be partners in their care, and who share a high amount of information with them about their condition and treatment (Buller & Buller, 1987; J. A. Hall, Irish, Roter, Ehrlich, & Miller, 1994; O'Hair, Behnke, & King, 1983; Rydman et al., 1997; Sun et al., 2000; Thompson et al., 1996; Wissow et al., 1998; Worchel, Prevatt, Miner, Allen, Wagner, & Nation, 1995). Age and gender have some influence on type of communication desired by patients (J. A. Hall et al., 1994, & O'Hair et al., 1983), but in all cases patients want physicians who are caring and who answer their questions.

Communication is the cornerstone of patient satisfaction. Wissow et al. (1998) studied 104 children and their guardians who presented to emergency departments in seven cities for treatment of asthma. They discovered it is important for the physician to

communicate with both the guardians and the children. Guardians were especially pleased when they were asked directly about their specific worries about the children, rather than merely given the opportunity to discuss concerns.

Communication even influences patient willingness to return to a particular hospital for future care. Sun et al. (2000) researched patients with six common emergency department (ED) diagnoses who presented at five teaching hospitals. The authors related patient satisfaction with the visit and willingness to return to the same ED for different or additional problems. They determined physician communication with the patient to be a crucial factor in satisfaction and willingness to return. Also important was the education the patient received about handling his or her specific problem. In a related editorial, Schwab (2000) noted that although most patients want empathy and information from their physicians, the less critically ill patients actually want more empathy than the severely critically ill desire. Schwab posits that the critically ill patients just want to survive; they do not necessarily care that their physician is friendly. It appears that many patients expect their physicians to communicate directly and in a caring manner or else, similar to shopping for shoes, they will find a physician or hospital to treat them better than the last. The customer, it appears, is always right.

In another emergency department study, Rydman et al. (1997) showed that communication with patients is critical to their satisfaction and perhaps to lower-cost care. Patients in the study were evaluated for diagnosis of their chest pain either in a traditional in-patient setting or in an emergency department chest pain unit. Patients were more satisfied with the care received in the lower-cost chest pain observation unit than on

the hospital floor. Patients, the study showed, want time to ask questions, and to get their questions answered in words they can understand, and in an appropriate manner. The study's authors expressed their own surprise at the results that the patients in the observation unit felt they received higher quality communication than the inpatients. It is possible that physicians were more easily accessible to patients in the emergency department-based chest pain observation unit than in the inpatient unit. Often inpatient units are staffed full-time by nurses who receive their orders from a cardiologist or internist who is away from the hospital. Physicians are always present in emergency departments and it is conceivable that the easier access to physicians led to greater satisfaction. Again, communication is a key element in patient satisfaction.

Not only are physicians a crucial element in patient satisfaction, Powers and Gonzales (1981) indicated that physicians also have a significant influence on patient compliance with treatment. They stated that, in order to improve patient compliance with care plans, physicians should avoid jargon, keep instructions simple, limit the complexity of treatment whenever possible (such as by ordering an antibiotic that is taken once a day instead of one that must be taken four times daily), and practice active listening with their patients. In a specialty such as emergency medicine where there is no regular follow up with individual patients, it stands to reason that simple treatments and instructions delivered in clear language would be crucial for patient compliance.

Continuing with the influence of physicians on the cost of care and patient compliance, Worchel et al. (1995) studied five pediatricians and 107 parents of their pediatric patients. They determined parents who perceived they had their questions

answered were less likely to make follow-up calls to the pediatrician. In fact, "42% of the variance in follow-up telephone calls and 28% of the variance in perception that concerns were addressed could be accounted for by communication and interaction variables" (p. 643). In addition to affecting patient care, it makes sense that the number of follow-up calls could influence physician job satisfaction. If the physician does not have to spend a significant amount of time on the telephone clarifying instructions, he or she would have more time to spend on other activities and so may feel more satisfied with the career choice.

Waiting for treatment does not appear to be as important as the clarity of communication while being treated. Thompson et al. (1996) studied 1,631 patients discharged from a 400-bed hospital with an annual ED census of 40,000. Patients were asked about length of wait for care (waiting time), quality of care received, amount and quality of information given by the staff, and the expressive nature or empathic quality of the caregiver, as related to satisfaction with the ED visit. Expressive quality was viewed as a very important element of satisfaction; surprisingly, waiting time was not. Again, studies show the influence of physician communication on patient satisfaction, and the preference for physicians who communicate caring and information.

Communication style is most important to patients who are infrequent visitors to a particular patient, according to Buller and Buller (1987). Modifying Norton's Communication Style Measure, the researchers found physician communication style is strongly related to patient satisfaction; in fact, the physician's communication style accounted for 70.6% of the variance in the patient satisfaction with care (p. 381). Patients

preferred physicians who ranked high on an affiliativeness scale, rather than those who were rated highly on dominance/activity. The preferred physicians were encouraging, friendly, open, attentive, and had expressive eyes. Those physicians least liked were ones who dominated the conversation, were argumentative, and verbally exaggerated to make points. By definition, most patients presented to emergency departments (EDs) are there for episodic care and do not establish a primary care relationship with the emergency physician. It is potentially more important for emergency physicians to be excellent communicators than other specialists, due to the episodic nature of the care given.

Not only does emergency physician communication influence cost and quality of care, it may influence emergency department violence. Lavoie et al. (1988) surveyed 127 of 170 (75.7%) of teaching hospitals, asking about attacks on staff, security measures, and capture of weapons in the emergency department. Attacks on or threats to staff are common, as is the presence of weapons. One hospital estimated confiscating 300 weapons a month, due to the presence of a metal detector in the ED. The authors noted that "poor patient-family-staff communication is a factor associated with ED violence," (p. 1231), and decry the lack of staff training to recognize and manage aggressive behavior. The authors describe several stages along the patient's violence progression continuum where the staff could intervene and prevent the escalation of violence. One possible intervention is to minimize patient waiting times, so potentially violent patients are treated without waiting in pain for several hours. Other solutions include psychological interventions or chemical management of the violent patient. The study authors indicate the nursing staff is not trained to recognize and manage the pre-violent or

violent patient. Working in a violent environment with little or no training on ways to improve the situation is highly likely to affect career satisfaction.

Physician Job Satisfaction

As mentioned previously, emergency medicine practitioners are, on average, married white men in their early 40s, working approximately 43 hours a week (American College of Emergency Physicians, 2000b). By and large, these physicians have energy, growing families, and erratic work schedules. As physicians in their early 40s, they may begin to feel some physical or emotional effects of the irregular sleep patterns and a general but modest physical decline. Characteristics of the specialty include many brief and intense patient encounters, and the emergency physician often saves lives, lending a sense of completion and success. In addition, emergency medicine is seen as a "controllable lifestyle" specialty because emergency physicians do not have office hours or take call (Schwartz, Barclay, Harrell, Murphy, Jarecky, & Donnelly, 1994). The "controllable lifestyle" factors include shift work, no calls from patients interrupting sleep at home, and no office staff to hire and train.

The lifestyle may be "controllable" and the patient encounters relatively brief, but emergency medicine is a stressful profession. Emergency physicians consistently rank personal wellness as the most important issue facing the specialty (American College of Emergency Physicians, 2000b; K. N. Hall et al., 1992). Stressors include abusive or demanding patients; working nights, weekends, and holidays; and the constant threat of malpractice litigation (Doan-Wiggins et al., 1995). Additional stressors are exposure to infectious diseases (Lum, Goldberg, Mallon, Lew, & Margulies, 1995a) and levels of

conflict between work and personal lives (American College of Emergency Physicians, 2000b).

A 1992 study of 70 emergency physicians who left the specialty showed shift work, emotional stress, and family considerations to be most influential reasons for leaving (K. N. Hall et al., 1992). A later study of 223 Canadian physicians confirmed that shift work was the top reason emergency physicians stopped practicing (Lloyd et al., 1998).

In an attempt to improve the personal and professional well being of emergency physicians, Smith-Coggins, Rosekind, Buccino, Dinges, and Moser (1997) attempted an intervention to induce physicians to have more and better sleep. They found that physicians working nights are not as effective in handling complex procedures, such as intubations. They also found physicians working night shifts had poorer attitudes than those working days. Their intervention did not dramatically increase emergency physician sleep time, which remained slightly under six hours of sleep per night when working nights.

Predictions are inconsistent as to the ultimate effect on the specialty of physician stress and burnout. A longitudinal study of emergency physicians showed only 7% of practicing emergency physicians expected to retire within five years (Reinhart et al., 1999). Other studies reporting expected five-year retirement rates ranging from 10 to 26% (American College of Emergency Physicians, 2000b; Doan-Wiggins et al. 1995; Gallery et al., 1992). The dire predictions of the earlier studies have not come to bear, perhaps because, although the physicians would not prefer to still be treating patients five years

from the date they were asked, personal economic realities have forced them to continue working in the field for which they are trained.

An international study showed generally moderate stress and depression of emergency physicians, yet a disproportionate number of physicians scoring relatively high on depression and stress scales (Whitley et al., 1994). Chapman (1997) indicated the problem is the specialty, not the personality style of those practicing. Koltonow (1989) disagreed, suggesting that emergency physicians are unwilling to see their personal limitations. He also suggested emergency physicians are not trained to cope with stress.

The all-pervasive stress is a problem for many physicians. Women and underrepresented minorities may show different levels of job satisfaction from Caucasian males. Palepu, Carr, Friedman, Ash, and Moskowitz (2000) found that underrepresented minorities in academic medical fields were more dissatisfied with their careers than non-minority physicians. Frank, McMurray, Linzer, and Elon (1999) studied 4,501 women physicians, including 87 women emergency physicians, and found that, if given the choice, many would not repeat the decision to become physicians. Of the 87 women who were emergency physicians, 49% were almost always or always satisfied with their career choice, and 42% would perhaps or definitely would choose a different specialty. Those who would become physicians again totaled 60%. Emergency medicine is a non-traditional specialty. It is often challenging for women emergency physicians to be away from their families and unable to attend school functions, soccer games, scout meetings, parent-teacher conferences, and other family obligations due to work schedules. In addition, during most shifts worked, the female emergency physicians, unlike other

mothers, would not be able to put their children to bed. These non-traditional hours may cause the female emergency physician additional stress and conflict as it is at odds with the nurturing role most women have or are expected to have in American society.

While stress and burnout are problems, there are ways to mitigate the maelstrom. Coping mechanisms physicians use include exercise, having close friends, taking action to reduce the cause of the stress, seeing humor in the situation, or using food, alcohol, or medication to dull the effect of stress (American College of Emergency Physicians, 2000b; Doan-Wiggins et al., 1995). Keller and Koenig's 1989 study of 77 emergency physicians indicated the long-term coping strategy of "drawing on past experience" had the highest correlation with job satisfaction. Short-term coping methods that correlated with job satisfaction included seeing humor in the situation, not worrying about the problem, and getting involved in other activities. Using alcohol, food, or recreational drugs was negatively correlated with job satisfaction.

Participating in a thriving marriage has been identified as one way to increase job satisfaction, perhaps by having a focus outside of work to get emotional support (Lum, Goldberg, Mallon, Lew, Marguiles, 1995b; Whitley, Gallery, Allison, & Revicki, 1989). Swanson et al. (1998) studied Scottish general practitioners and found that they had a higher amount of home-to-work stresses than consultants. Home-to-work stresses were measured by items such as the amount of emotional support outside of work, a stable home life, and the amount of career support received by an intimate partner. Research shows unmarried emergency physicians are more stressed than married physicians (Lloyd et al., 1998; Whitley et al, 1989). This may be due to the use of marriage as form of social

support. In fact, Pfifferling (1998) suggested creating or joining support groups and engaging in outside activities in order to decrease stress.

Several studies suggest methods for evaluating physician job satisfaction. Konrad et al. (1999) determined 10 facets that make up job satisfaction: a) autonomy; b) relationship with colleagues; c) relationship with patients; d) relationship with non-physician staff; e) personal time; f) intrinsic factors, such as making a difference in the lives of others; g) community, including respect by others; h) pay; i) administrative work, such as supervision and paperwork; and j) resources, including supplies, space to treat patients, and support staff. The nature of emergency medicine allows emergency physicians to have a moderate degree of autonomy, make a tremendous difference in the lives of others, often without the respect of the other specialists they count on to come to the emergency department and take over continuing patient care. Emergency medicine is a specialty of breadth and of diagnosis and stabilization. Its practitioners are not trained to perform general surgery, admit patients to inpatient units for ongoing care, or treat complex orthopedic problems; they must call in specialists to come to the hospital to treat patients. The specialists they call in at 2:00 a.m. generally are not pleased to hear from the emergency department and may perceive themselves to be heroes "rescuing the ER docs," and the emergency physicians less capable than they. It is difficult to continually interact with and request assistance from others who lack respect for the requestor.

In an attempt to develop a career satisfaction scale, Lloyd et al. (1998) unsuccessfully tried to develop instruments that would use satisfaction as a predictor of leaving the specialty. They found their 12-item Global Job Satisfaction Survey could

predict who would stay in the emergency medicine. Consistent with other studies, top reasons for leaving the specialty included, "'shift work' . . . followed in decreasing order by 'emotional stress,' 'workload pressures,' 'family considerations,' and 'physical stress'" (p. 237).

Carmel (1997) successfully developed a scale to measure physician self- esteem with job and life satisfaction. In her study of 214 Israeli physicians, she found that those with differing professional statuses had different levels of professional self-esteem. In addition, those with higher professional self-esteem had higher ratings of job and life satisfaction.

In a study related to professionalism, Stevens, Philipsen, and Diederiks (1992) found that Dutch physicians with a formal work structure and highly professional colleagues were more satisfied with their jobs than those who did not. In addition, professional attitudes, such as care of the patients and pride in work, also correlated with job satisfaction. Physicians were most satisfied when they had a say in creating the formal work structure. This is a challenge for emergency physicians, many of whom are not members of the hospital committees responsible for administrative oversight, hiring and firing nurses and technicians, entering into managed care contracts, and even creating job descriptions for emergency department support personnel. They often come to work, put in their time and leave, having little or no control over their environment.

Control over work and its formal rewards can be a factor in job satisfaction. Carmel and Glick (1996) evaluated 214 physicians for their "compassionate-empathic" behavior along with their self-esteem and burnout ratings. The study found

compassionate-empathic physicians to be younger than non-compassionate physicians. Both groups had similar levels of self-esteem. The compassionate-empathic physicians felt a need for more control over the time spent at work and with their families. The hospital system, according to the authors, rewards physicians who score more highly on the "curing" dimension than the "compassionate-empathic" one, perhaps discouraging the "caring" physician. It may be appropriate to find ways to reward physicians who display the caring attitude, as that style appears to be one that is preferred by patients. It is also possible that the longer a physician practices, the more detached he or she becomes from patients, in a self-protective gesture to keep from the pain of mortality and morbidity. Hence, younger physicians may be more "compassionate-empathic," because they have not yet reached the cumulative stress point where they need to detach.

Patients desire open communication, and nurses are no different. Wheeless et al. (1989) studied 179 nurses from a variety of hospitals. They evaluated the nurses' responses to routine and emergency patient care decision-making situations. They discovered nurses were more apt to make decisions when the hospital climate included flexible rules, and the physicians working with the nurses were responsive and impression leaving. One newer, small study of relationships in a large neuropsychiatric veterans administration hospital showed good physician-nurse communication and interaction (Anderson, 1996). In an initial study of the same hospital, "interpersonal relationships with other nurses and with physicians was perceived as the highest area of satisfaction—and the greatest source of stress" (p. 33). The author completed a follow-up study that showed that physicians perceived open communication and cooperative attitudes as items

they valued and noted in their relationships with nurses. The nurses valued trust and social interaction with physicians. Nurses felt their cooperative behavior led to good nurse-physician interaction, and physicians felt they respected the nurses' education and knowledge. It appears mutual trust and respect can lead to positive working relationships, and, one expects, greater job satisfaction.

Nurses have many stressors of their own unique to their jobs: role ambiguity, communication overload due to competing priorities, too much work, uncooperative co-workers, and conflicts with physicians (Wilcox, Fritz, Russell, & Wilcox, 1983). Some conflicts arise over patient orders. Cunningham and Wilcox (1985) found that most nurses preferred an indirect approach when initially questioning a physician about an order. Most would become more direct in their communication if they felt the physician's orders would harm the patient. The study recommended all nurses have a range of communication methods in their personal toolboxes, ranging from direct to indirect, in order to improve patient care. Nurse stresses are doubtlessly different from physician stresses, but equally evident, and many stresses are related to communication issues.

Physician Style

Although there is a dearth of information in the emergency medicine literature about physician personality or communication style, other specialties are better researched. Some studies show the ability to predict specialty based on personality style (Friedman & Slatt, 1988; Howard, 1992; Schwartz et al., 1994), but again, none mentioned emergency medicine. Zeldow and Daugherty (1991) studied graduates of two consecutive medical school classes in the mid-1980s. They administered several tests to

determine personality styles. They grouped hospital-based specialties into one category: radiology, anesthesiology, pathology, emergency medicine, and psychiatry. As a limitation of their study, the authors acknowledge it may have been an error to combine all hospital-based specialties. It is clear that many of these hospital-based specialists' patients differ significantly from emergency physicians' patients: the emergency physicians' patients are present and demanding attention, unlike the patients seen by radiologists or pathologists. In the work they completed, Zeldow and Daughtery successfully predicted some specialties between 68.8% and 87.5% of the time, using personality profiles. Evidently specialties can be predicted, once identified. The emergency medicine personality style, if there is one, has not been identified through published research studies.

Schwartz et al. (1994) studied 110 physicians, divided between surgeons, "controllable lifestyle" (hospital-based) physicians, and primary care physicians. They discovered surgeons to be a fairly homogenous group. The "controllable lifestyle" physicians, including emergency physicians, were found to be more creative and less extroverted than surgeons. Stilwell, Wallick, Thal, and Burleson (2000) described Myers-Briggs personality styles for 3,987 physicians in primary care and non-primary care specialties. They did not report data for specific specialties, except for family medicine. Physicians choosing family medicine ranked high on the feeling dimension of the Myers-Briggs scale, and surgeons ranked high on both the extraversion and thinking dimensions of the scale. It is clearly time to study emergency medicine and add that knowledge to the literature.

Some research has shown that matriculating medical students have a fairly clear idea about what field they would like to enter. Burack et al., (1997) studied the University of Washington School of Medicine 1995 graduating class. They discovered 75% of the graduating students chose the same area of study, broadly defined as primary care or non-primary care, after four years of school as they did upon entering the class. For non-primary care students, control over work hours and less patient involvement were motivating factors in choosing their specialty. Certainly, emergency medicine meets the criteria of other non-primary care specialties, as there is no patient follow-up (though there is acute involvement for the moment) and emergency physicians, when off duty, only rarely are called to come to the hospital and see patients.

Intellectual ability does not appear to be a determining factor in career choice, according to a 30-year old study (Crowley, Schimpfhauser, & Wittemann, 1972). The researchers studied 191 persons who at some point considered a career in medicine. The study found relatively insignificant differences in intellectual ability between those who entered medicine and those who did not. Griffith, Georgesen, and Wilson (2000) studied 169 third-year medical students rotating through internal medicine. They identified "excellent" students, who by their grades and evaluations were determined to be at the top of their classes, and so could apply for any specialty training programs. They also identified "best" internal medicine clinical instructors as evidenced by receiving the highest teaching evaluations for the previous two years. They discovered 30% of the 29 "excellent" students who worked with a "best" internal medicine clinical instructor chose to apply to residencies in internal medicine. On the flip side, none of the 23 "excellent"

students who did not work with a "best" internal medicine instructor chose to enter an internal medicine residency-training program. Therefore, it may be important that medical students be exposed to excellent emergency medicine teachers in order to choose the specialty.

Internal medicine is one of the primary care specialties, along with family practice. Rezler and Kalishman (1989) studied graduates of a medical school who initially committed to family practice when entering the program. Researchers reviewed grades, standardized test scores, files, and essays, and conducted interviews with those who remained in the family medicine and those who switched to become specialists. From this information, the authors developed a screening tool to use as a predictor for staying in family medicine. They then used the tool on 30 physician files, correctly predicting 83% of those who remained in the specialty. It may be possible to develop a similar tool for emergency medicine.

Personality appears to be an important determinant of career success. Judge, Higgins, Thoresen, and Barrick (1999) examined the personality traits commonly termed "The Big Five" (p. 621) forming the five-factor model of personality and career success. The personality traits are: a) neuroticism, b) extroversion, c) openness to experience, d) agreeableness, and e) conscientiousness. There is a strong belief that these personality factors are genetic, and the research shows they are stable predictors of career success.

Personality can determine resource use. Ornstein et al. (1988) studied 53 physicians who ordered 10,000 tests for their hypertensive patients. The research concluded that physicians who were more introverted and intuitive than other styles

ordered more tests. Different specialties may have different personalities, which may influence the cost of medical care. In an intriguing study of a single hospital's emergency department "fast track" (where less ill patients are seen) by Panacek et al. (1996), researchers found emergency physicians and emergency medicine residents had shorter length of stays for patients than internal medicine or surgery residents, ordering fewer x-rays and consultations. Internal medicine residents ordered more laboratory tests and surgery residents ordered more x-rays than practicing emergency physicians or emergency medicine residents. Surprisingly, surgical residents admitted patients far less often than even experienced emergency physicians, calling into question the quality of care provided by the surgical residents and the potential of discharging patients with problems that should be treated in the hospital.

Type of practice may influence satisfaction. K. N. Hall et al. (1992) noted that emergency physicians who left the specialty "were significantly less likely" to be working with, teaching, or in other ways associated with residents (p. 295). They "conclude that the stimulation of contact with residents appears to offset some of the more stressful aspects of emergency medicine" (p. 296). In addition, Gallery et al. (1992), in a study of emergency physicians who planned to leave clinical practice, found that 14.4% planned to go into administration, 9.83% into academic emergency medicine, and 1.44% into emergency medicine research. It may be that these non-clinical roles are seen as less stressful than seeing patients and that physicians in these roles are happier than those in clinical practice.

With emphases on patient satisfaction, physician satisfaction, and style, the

communication message is clear: it is not enough to communicate in a style that is natural; people must communicate in a way that gets the message across to the intended receiver (Nasca, 1994). It may prove very helpful to find the information to create a link between style and career satisfaction in order to help medical students make conscious decisions about themselves and their future, guiding them in determining whether emergency medicine may be a suitable career for them.

Based on a review of the literature and knowledge of the specialty, this study proposes one research question:

RQ: What is the relationship between individual emergency physician personality style and career satisfaction?

CHAPTER 3

RESEARCH METHODOLOGY

Sample

The sample included current active members of the American College of Emergency Physicians (ACEP) in the United States who have been practicing emergency medicine for a minimum of three years and who have e-mail addresses. From a population of approximately 4,000 emergency physicians who met these criteria, a random sample of 1,000 was selected. Of the 1,000 e-mails sent, 293 (29.3%) were returned as undeliverable, due to incorrect e-mail addresses, allowing for 707 potential respondents. After a follow-up mailing, a total of 352 responses were received (49.8% response rate). Of those, 329 were usable (46.5% response rate).

Procedure

The study used a Web-based survey. Electronic mail (e-mail) and Web-based surveys are increasingly used due to their low-cost ability to reach many people and the rapidity of receiving responses (Sheehan, 1999). This ease of administration must be balanced against the ability of the recipient to delete the message with the stroke of a key. For this reason, the researcher must add steps to the process to increase the response rate (Dillman, 2000). Sheehan found that prenotification appears to increase response rates, and Mavis and Brocato (1998) suggest that steps may need to be added to the process to increase response rates to e-mail surveys. The study incorporated prenotification and

follow-up communication. Participants were sent an e-mail on a Friday notifying them that three days later, on Monday, they would receive another e-mail message with a link to an Internet site with a survey. The prenotification message included a brief explanation of the study and a request to complete the survey (Appendix A). The following Monday, the sample received an e-mail message with an explanation of the study and a request to click on the link and complete the survey (Appendix B). Participants were encouraged to respond to the questionnaire by noting the goal to improve resident selection in emergency medicine residency programs. In addition, the validity of the student was established as an employee of ACEP. Confidentiality of responses was assured. The survey instrument is included as Appendix D.

Non-responders received a follow-up e-mail two weeks after the initial e-mail was sent (Appendix C) in order to obtain an acceptable response rate of 50% (Babbie, 1990). It was important to administer a short, easy to use questionnaire in order to increase the likeliness of response (Dillman, 2000).

Instruments

Social Style Analysis

The Internet link included the Behavioral Style Analysis® questionnaire, formerly known as Social Style Analysis (© 1998 by J. Darling, Rockhurst University, Kansas City, MO, used with permission) developed by Darling (Taylor, Krajewski, & Darling, 1993). The instrument consists of 20-paired sets of statements and uses a four-point Likert-type scale to measure self-report of behavior. Modeled after an instrument developed by Merrill (Kolacek, 1999, p. 142), Darling's instrument measures

responsiveness and assertiveness, with questions 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19 determining the assertiveness construct, and questions 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 measuring responsiveness. The use mentioned by Darling is in crafting direct marketing communication in order to better meet customer needs and create positive sales-customer relationships.

Scoring was accomplished by reviewing each dimension (assertiveness, responsiveness) separately. For the assertiveness questions, the number of times an individual selected 1, 2, 3, or 4 on the Likert-type scale was counted and multiplied by the number selected, and the total divided by 10; e.g., an individual selecting two "1" responses, three "2" responses, three "3" responses and two "4" responses would have a total equal to 25 (2x1 + 3x2 + 3x3 + 2x4), divided by 10, would score 2.5. That number was then rounded to the nearest whole number. The same exercise was completed for scoring questions measuring responsiveness. The score indicates the person's social style as either analytical, driver, expressive, or amiable.

Kolacek (1999), in his dissertation, compared the well-known Myers-Briggs™ personality inventory (© CPP, Inc., Palo Alto, CA, www.cpp.com) with Darling's Social Style Analysis and found that they compatibly measure assertiveness and responsiveness. Darling reported overall comparison Z-statistics of 16.81, significant at $p < .05$. A literature search revealed no other published studies on the Social Style Analysis. Because of the lack of published data on the reliability of the Social Style Analysis, Cronbach's alpha test was performed.

Career Satisfaction

The Career satisfaction instrument immediately followed the Social Style Analysis on the Internet link. The instrument was developed by Greenhaus, Parasuraman, and Wormley (1990) for a study they completed on the effects of race. They determined the instrument had an $\alpha = .88$. The instrument is a five-item questionnaire, asking about satisfaction regarding career success, meeting career goals, meeting income goals, advancement, and developing new skills. The satisfaction instrument uses a five-point Likert-type scale, ranging from 5 (*strongly disagree*) to 1 (*strongly agree*).

Analysis

Less than a week before the researcher was scheduled to send the first prenotification e-mail to the randomly selected emergency physicians, the host e-mail server experienced a problem and all ACEP members with e-mail addresses received a meeting advertisement approximately 30-60 times. Many of those members suspected that their e-mail accounts had been infected with a virus, thus asking to be removed from the ACEP e-mail list. The ACEP executive director then placed a several week moratorium on sending mass e-mails. After the moratorium was lifted, a random sample of 1,000 e-mail addresses of ACEP members in practice a minimum of three years was selected.

On Friday, April 26, 2002, the 1,000 e-mail prenotification messages were sent. Of those, 293 (29.3%) were returned as "undeliverable," due to invalid e-mail addresses.

On Monday, April 29, 2002, the e-mail letter and link were sent, and the reminder notice was mailed on May 13, 2002. A total of 352 responses were received (49.8%

response rate). Twenty-two of the respondents had invalid responses, so 329 were usable (46.5% response rate). The 22 responses were determined to be invalid if they answered fewer than four out of five career satisfaction questions, or fewer than 18 of 20 Social Style questions.

Questionnaires were compiled using the Survey Said™ Web questionnaire development software program (© Marketing Masters, DePere, WI, www.surveysaid.com), and the results transferred to a software spreadsheet program. Frequencies and percentages were run on the demographic data collected.

Scores on the personality style and career satisfaction inventories were tallied using the software spreadsheet program, and the responses were subjected to one-way ANOVA analysis, because the study attempted to determine correlation between these two variables. The statistical program SPSS® (© SPSS Inc., Chicago, IL, www.spss.com) was used to complete the ANOVA. Significance at the $p > .05$ level was the baseline used to determine whether any relationship found was significant. In order to determine whether the social style construct was a valid instrument, Cronbach's alpha was run on both the assertiveness and responsiveness dimensions, and the entire 20-item scale. Again, SPSS was used and the goal was to find an $\alpha \geq .80$ (Frey, Botan, Friedman, & Kreps, 1991).

CHAPTER 4

RESULTS

A total of 329 survey results were analyzed. Demographic information on the respondents revealed that 52.2% were between the ages of 36 and 45, with no respondents younger than 29 years old, and one reporting to be over the age of 70 (Table 1). Over 92% of respondents were born in the United States (Table 2), and 86% indicated their race as Caucasian (Table 3). All but two stated they were residency trained in emergency medicine (Table 5), and 55.9% have been in practice between 6 and 15 years (Table 4). The nature of the practice is divided among clinical, teaching, research, and administrative duties, with the respondents reporting an average of 69.9% of their time spent seeing patients (Table 6).

RQ: What is the relationship between individual emergency physician personality style and career satisfaction?

The analysis of variance revealed no correlation between emergency physician personality and career satisfaction, $F = .477$, $p = .698$ (Table 8). The reliability analysis for the assertiveness construct of the Behavioral Style Analysis® (formerly known as Social Style Analysis, © J. Darling, Rockhurst University, Kansas City, MO, used with permission) revealed $\alpha = .71$, and for the responsiveness construct, $\alpha = .73$. Because it was difficult for the researcher to distinguish between questions measuring assertiveness and measuring responsiveness, Cronbach's alpha was run on the entire scale, revealing

$\alpha = .76$ (Table 10). The social styles of the 329 respondents included 63 (19.1%) who were determined to be analytical, 112 (34%) were driver, 124 (38%) were expressive, and 30 (9%) were amiable (Table 9). The career satisfaction of the emergency physician respondents averaged 4.03, on a scale where 1 equates to *extremely satisfied* and 5 to *extremely dissastisfied* (Table 7).

The physicians studied had a low satisfaction, averaging 4.03 on a scale where 5 equates to *extremely dissatisfied* (Table 7). In addition to low career satisfaction, there were problems with the Social Style instrument. The combined reliability of the entire Social Style scale was greater at $\alpha = .76$ than the reliabilities of the assertiveness or responsiveness constructs. Because of these two factors, it is not possible to determine whether certain components of personality style are more related to career satisfaction than others.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Discussion

The emergency physicians who responded to the survey appear to be unhappy individuals, with an average career satisfaction score of 4.03, with 1 as *strongly agree* to questions concerning satisfaction with various aspects of their career, and 5 as *strongly disagree* (Table 7). Potential reasons for the dissatisfaction include, among others, the current economic conditions. The survey was distributed in late April 2002, when the stock market was well into a downward turn. The Dow Jones Industrial Average™ economic indicator (© Dow Jones & Company, Inc., Princeton, NJ, www.dowjones.com) peaked in the first quarter of 2000 at 11,723 on January 14, 2000; it began its downward trend at the end of the first quarter that year and has remained in a downward mode through the completion of this study. As of April 30, 2002, when the survey was sent, the Dow Jones Industrial Average was 9,946, a loss of 15% of the Dow's value (Bloomberg Financial Markets Commodities News®, from Bloomberg Professional® service [both © Bloomberg L. P., New York, NY, www.bloomberg.com], extracted September 11, 2002). Because the health of the stock market can be an indicator of a person's wealth and hence ability to retire, it is possible that career satisfaction was low because the respondents see that their investments are worth less than they were two years previously, with no predicted relief. It stands to reason that persons who feel they are financially stable and

able to retire when planned will be more satisfied than those who are not, because they feel more in control of their destiny.

The downturn in the financial markets was not the only economic problem faced by emergency physicians. As mentioned previously, in November 2001, the Medicare program announced a 5.4% budgetary cut, that when combined with other Medicare cuts, resulted in an across-the-board overall eight percent average decrease in emergency physician reimbursement for 2002 ("ACEP Continues to Fight 5.4% Cut in Medicare," 2002). Traditionally, the changes made by the federal government's Medicare program are mirrored by other insurance companies, so that emergency physicians can expect to be paid less to treat many patients, not just those covered by the Medicare program.

While Medicare and other insurers are ratcheting down what they pay emergency physicians to deliver care to their patients, managed care has increased the bureaucratic environment that is part of delivering care. Hospitals and emergency departments are faced with increased paperwork for each patient they treat, having to telephone insurance companies in order to receive authorization for care or they will not be paid for treating those patients. Yet emergency departments are required to treat and stabilize all patients to present to the hospital for care, and following the mandates of the insurance company for pre-authorization may put the hospital and physician at risk for violating the law. The federal Emergency Medicine Treatment and Labor Act (EMTALA) mandates that emergency departments screen and stabilize all patients. The hospital and physician are caught between doing what is lawful and right, and following managed care's mandates. In addition, although EMTALA requires patients be screened and stabilized, it does not

require any entity to pay for that care ("Reports detail EMTALA's impact on emergency medicine," March 2001).

In addition to the issues surrounding EMTALA, insurance companies often deny payment for emergency care when the patient's diagnosis was not a condition the insurance company deems to be an emergency. For the patient, the chest pain experienced felt like a heart attack; if it turned out to be heartburn, the insurer often refuses to pay the claim. These denials of claim lead to increased paperwork to appeal the decision, and often no payment is made: neither the patient, who is now well, nor the insurance company is willing to pay the bill ("ACEP seeks 'black box' edit info from members," May 2002).

The previously reported stresses emergency physicians face (Doan-Wiggins, et al., 1995) are probably getting worse. More patients are being seen in fewer hospital emergency departments, adding stress to an already fragile health care system. Between 1997 and 2000, emergency department visits increased by 14% to 108 million patients, while the number of hospitals with emergency departments decreased from 4,005 to 3,934. (McCaig & Ly, 2002). Therefore, more patients were seen in fewer hospitals, with less space to house the patients; the result is overcrowded emergency departments. The crowding has reached "sustained crisis levels," (Richardson, Asplin, & Lowe, P. 388), and may impact patient care. The implications of these increasing stresses on emergency physicians are unknown, but probably are detrimental.

In addition to a higher volume of patient visits and decreased payments, it has become increasingly difficult for emergency physicians to get on-call physicians to treat

emergency patients. In emergency departments, the emergency physician does not admit the patient to the hospital; he or she performs the initial diagnosis and management, then calls in a specialist to resolve the problem and continue taking care of the patient. For example, when a patient arrives in the emergency department with a gunshot wound to the head, the emergency physician would evaluate and stabilize the patient, perhaps working to stop the bleeding and begin life-saving procedures to stabilize the patient's condition. The emergency physician would then call and ask a specialist, perhaps a neurosurgeon, to come to the emergency department and operate on the patient. Yet it is increasingly difficult to find specialists willing to come to emergency departments and treat these patients. Issues faced by the specialists who are on call to the emergency department include lack of history with the patient, decreased or often non-existent reimbursement, and an increasingly litigious climate. Malpractice insurance rates have risen so high that some specialists have quit practicing ("Dramatic rise in malpractice rates," March 2002). Managed care plans often refuse to pay for care provided by physicians who are not on the patient's list of providers, providing a tremendous disincentive for the on-call physician to come to the emergency department. The difficulties the emergency physician faces in getting an on-call physician to come and treat the patient in need adds to crowded emergency departments and is a stressor that may affect career satisfaction.

In addition to the difficulties in getting the on-call specialists to treat emergency patients, there is a severe nursing shortage in American hospitals ("Nursing shortage confirmed," March 2001). Nurses are needed not only to help care for patients in

emergency departments, but to care for patients who have been admitted to the hospital for continued treatment, such as after heart attacks, with respiratory difficulties, or unexplained abdominal pain. There are simply not enough trained nurses to monitor the patients admitted to the hospital, leading to long delays before emergency department patients can be moved to hospital beds. These delays add to the gridlock faced in emergency departments. In parts of the country, emergency departments have been forced to go on diversion, not allowing ambulances to deliver any more patients to the hospital, for several hours at a time ("Admitting ED patients to the hospital," October 2001). In other cases, patients are leaving the hospital before even being seen by a physician, due to the long waits ("CMS: Overcrowding is causing EMTALA violations," September 2002).

Patients often do not know their emergency physician, and most do not develop a personal relationship with the doctor who treats them during a crisis. As a result, emergency physicians are often named in hospital lawsuits. Common wisdom holds that patients do not sue physicians they like; very few patients have a long-term relationship with an emergency physician. The nature of emergency medicine is one of short-term episodic care, and patients do not spend time each year or two making an appointment and visiting the same emergency physician, developing a rapport. Often the emergency physician is named along with other physicians and the hospital in a malpractice suit, because the emergency department was the point of entry of the patient into the health care system. The bad outcome of a patient's case may have had nothing to do with the care received while a patient in the emergency department, but because the emergency physician was the first to evaluate the patient, he or she is named in the suit ("Court rules

for emergency physician," February 2002).

The impact of the terrorist events of September 11, 2001, must be considered in examining satisfaction of emergency physicians. Emergency physicians are trained to save lives, and hospitals in the New York City area geared up to receive what they anticipated to be hundreds or thousands of victims of the airplane attacks. Instead, they treated very few patients and watched with the nation as the toll of deaths increased and there were very few survivors. The grief brought about by those events was compounded by the anthrax scare that immediately followed the terrorist attacks. Emergency physicians across the country were on heightened alert as patients came to the emergency department to ask whether the flu symptoms they experienced were the result of a deadly toxin ("Bioterrorism and emergency medicine," December 2001).

The terrorist attacks and anthrax events took their toll on more than those Americans directly affected. There has been an increase in addiction problems since September 11, 2001, including a nation-wide increase in requests for treatment for drug and alcohol problems. Emergency physicians are not immune from these addictions, turning to drugs and alcohol to cope with stress (Armour, 2002; Houry, Shockley, & Markovchick, 2000).

As mentioned in the literature review, many persons are attracted to emergency medicine because it is a lifestyle specialty, in that the physician is responsible for treating patients only during the shifts he or she is assigned (Schwartz et al., 1994). The shift work that is appealing to a younger physician may take its toll on the older physician. The sample studied included physicians who had been out of residency a minimum of three

years; they have had at least three years to tire of the work, and to experience the physical and emotional problems associated with variable shift work: increased irritability, illnesses, and errors (Kuhn, 2001). It seems reasonable to assume that these issues will become more stressful as the physician ages.

Finally, it may be that the crowded conditions, decreasing reimbursement, increasing paperwork, lack of nursing support, and physical and emotional tolls associated with variable shift work are violating the expectations of these emergency physicians. They may have entered the specialty hoping to work together with other physicians, nurses, and administrators to deliver high-quality, life-saving care, and instead they are faced with less pay, more work, less help, and more lawsuits than they anticipated. The violation of their expectations may well influence their satisfaction with their chosen career.

Regarding the styles of the emergency physicians studied, the majority scored higher on the assertiveness dimension, categorized as drivers and expressives, than on the responsiveness dimension, categorized as analyticals and amiables (Table 9). Emergency physicians take charge of patients they do not know, for brief periods of time, and are often unsure of the patient's outcome. The very nature of the specialty is one of making quick decisions, in an occasionally violent arena, trying to save lives. It is possible that the persons drawn to the often-chaotic environment of the emergency department are more assertive than responsive.

Limitations of the Study

Limitations of the study are several. The study sample was limited to members of the American College of Emergency Physicians with e-mail addresses and so may not be representative of the projected population of 32,000 physicians practicing emergency medicine. In addition, the problems with the multiple mailings to ACEP members may have created a negative impression about e-mail from ACEP, and so discouraged potential respondents from replying to the questionnaire. It may be possible that only those physicians were unhappiest responded to the survey, as a way of voicing their dissatisfaction.

In addition to sample limitations, the survey instruments may have been deficient for their intended purpose. Clearly, the respondents to this survey were not happy in the five areas tested that comprised the career satisfaction instrument. The areas tested included career success, overall career goals, income goals, advancement goals, and development of new skills. Nowhere, however, does the survey ask whether the respondent is happy with the chosen career. In addition, the instrument asked only five questions, *and only gave five possible responses (Likert-type responses ranging from strongly agree* to *strongly disagree*). A more discriminating instrument may have allowed for a more precise measure of satisfaction.

The career instrument may not have tested satisfaction as it was hoped, and the Behavioral Style Analysis® instrument, formerly known as Social Style Analysis (© J. Darling, Rockhurst University, Kansas City, MO) may not have measured what it was intended to test, either. All 20 questions comprising the Social Style survey appear to

measure the same construct, rather than the expected 10 questions measuring assertiveness and 10 questions measuring responsiveness. The higher reliability for the combined scale than for either individual construct shows this defect (Table 10). It is unclear what construct the Social Style instrument measured, and so probably should not be relied upon in future studies to measure style.

Areas of Future Research

Areas of future research are several. First, the study of style and satisfaction could be redone, using different survey instruments. The changes in health care, the plethora of information available on health care via the Internet, and current economic conditions likely have an effect on job satisfaction and warrant study. The change reported by Beisecker and Beisecker (1993) from a paternalist form of physician behavior to a more equal consumer-physician shared responsibility model, may also affect the job satisfaction for emergency physicians and may be an area of future study. Given the stressful nature of the specialty, age and experience may influence career satisfaction, and so warrant study.

The survey asked for percentage of time in the main areas of emergency medicine: clinical work (seeing patients), teaching, research, and administration. It may be possible that emergency physicians experience greater satisfaction in one of those areas, or possibly a combination of areas, which could be explored through future research.

Conclusion

The goal of the study was to determine whether there was a style of emergency physician happiest in the specialty of emergency medicine. The study included Internet

survey responses from 329 practicing emergency physician members of the American College of Emergency Physicians, a response rate of 46.5%. Participants determined their social style and career satisfaction. The emergency physicians responding to the survey were generally homogenous, all but two were residency trained in emergency medicine, over 92% were born in the United States, 86% Caucasian. In addition, the group selected has more than three years of experience (Tables 1-5).

The majority of the physicians studied were assertive, with the most common styles expressive and driver, 37.69% and 34.04%, respectively (Table 9). Unfortunately, their responses to the career satisfaction instrument show they are also unhappy with the career they have chosen, with an average score of 4.03, where 1 indicates *very satisfied* and 5 *very dissatisfied* (Table 7). The dissatisfaction may relate to several factors, including the stress of the profession, increased patient crowding, and violation of personal expectations of their chosen career.

Had the study shown a correlation between style and satisfaction, medical schools and residency training programs would have had increased information leading to theories on the effective practitioners of emergency medicine, and potentially career longevity. They could have used the information to assist medical students with career counseling. This study, however, did not show any correlation between style and satisfaction.

Emergency physicians treated 108 million emergency department patients in 2000 (McCaig & Ly, 2002). Their role as key players in America's safety net is vast, and their satisfaction an area worthy of future study.

APPENDIX A

PRENOTIFICATION E-MAIL MESSAGE

Prenotification E-mail message, sent April 26, 2002:

Dear Dr. (last name)

Your input as an emergency physician is important. On Monday, April 29, I will send you an e-mail link to a short survey to help determine whether the communication style of emergency physicians can predict career satisfaction.

The project is part of my work on a master's thesis in communication studies, and I hope the results will help residency programs predict who will do best in the specialty.

Please look for the survey Monday. Thank you!

Janet S. McEwen, Director

Grants and Development

American College of Emergency Physicians

Graduate Student, Communication Studies

University of North Texas, Denton, Texas

APPENDIX B

SURVEY WITH INTERNET LINK

Survey With Internet Link, Sent April 29, 2002:

Dear Dr. (last name)

I am completing a study on whether communication style of emergency physicians can predict career satisfaction, and would appreciate your help. If we can determine a link between style and satisfaction, residency programs may be able to use the information to better predict who will do well in, and enjoy, emergency medicine. You do not have to participate, and can drop out at any time.

Please click the link below. Your number is (personalized number). The survey should take no longer than 8 minutes to complete.

http://www.acep.org/survey/janet.html Your number is (personalized number).

I have worked for the American College of Emergency Physicians for 19 years and have received permission to contact ACEP members for the purposes of the study. I am completing the study as part of my requirements for a graduate degree in communication studies from the University of North Texas. The university's Institutional Review Board has approved this study. It is unlikely that participation in the study will be harmful to the participant.

By clicking on the link, you will answer a few demographic questions, then the 25 survey questions. Only aggregate data will be reported and I will not divulge any single person's response.

I hope you will participate in the study that may help advance the selection process of residents in emergency medicine. If you have any questions, please contact me at ACEP at 800/798-1822, ext. 3215, or jmcewen@acep.org. You may also contact

Michael Gallery, PhD, CAE, ACEP Deputy Director, at 800/798-1822, ext. 3210, or mgallery@acep.org. In addition, should you have any concerns, the University of North Texas oversight is provided by Lori Byers, PhD, 904/565-4283, or byers@unt.edu.

Sincerely,

Janet S. McEwen, Director

Grants and Development

American College of Emergency Physicians

Graduate Student, Communication Studies

University of North Texas, Denton, Texas

http://www.acep.org/survey/janet.html. Your number is (personalized number).

APPENDIX C

REMINDER E-MAIL

Reminder E-mail, Sent May 15, 2002:

Dear Dr. (last name):

We need your input! A few days ago I sent you an e-mail link to a survey on emergency physician communication style and career satisfaction. The survey may be used to help determine whether some residents may be happier in emergency medicine than in other specialties.

Please click on the link below and complete the survey - it only takes 8 minutes. You do not have to participate in the study and you can drop out at any time.

Please click the link below. Your number is (personalized ID). The survey should take no longer than 8 minutes to complete.

http://www.acep.org/survey/janet.html Your number is (personalized ID).

Thank you for your time.

Janet S. McEwen, Director

Grants and Development

American College of Emergency Physicians

Graduate Student, Communication Studies

University of North Texas, Denton, Texas

http://www.acep.org/survey/janet.html Your number is (personalized ID).

APPENDIX D

SURVEY INSTRUMENT

Emergency Physician Communication and Satisfaction Survey

The purpose of this study is to determine whether communication style is a predictor of career satisfaction in emergency medicine. Following is a survey that should take no more than 8 minutes to complete. If you have any questions, contact Janet McEwen at jmcewen@acep.org

START HERE

Please enter the number given you in your email. Thank you.

[ ]

1. What is your age? Please select one of the following:

__ younger than 29

__ 29-35

__ 36-40

__ 41-45

__ 46-50

__ 51-55

__ 56-60

__ 61-65

__ 66-70

__ over 70

Sex __M __F

2. In what country were your born? Please type your answer below.

[ ]

3. If you were not born in the United States, how many years have you lived in the U.S.? Please type your answer below.

[ ]

4. What is your race/ethnicity? Please type your answer below.

5. Are you residency trained in emergency medicine?

__ yes

__ no

6. How many years have you practiced emergency medicine?

- o less than 3
- o 3-5
- o 6-10
- o 11-15
- o 16-20
- o more than 20

7. What percentage of your paid work time do you spend in the following activities? Your total should equal 100%.

% Clinical practice

% Teaching

% Research

% Administration

Total (should equal 100%)

Communication Style*

Each paired set of statements below (1-20) represents a continuum of behavior. Circle the number (1-4) that best describes your behavior most of the time. There are no right or wrong answers. Work quickly; record your first impression.

Select the button on the continuum that most represents you.

1. I speak more slowly and softly		|		I speak more quickly and loudly
	o 1	o 2	o 3	o 4
2. I have less facial expressiveness		|		I have more facial expressiveness
	o 1	o 2	o 3	o 4
3. I move more slowly and deliberately		|		I move more rapidly
	o 1	o 2	o 3	o 4
4. I seem to be more serious		|		I seem to be more happy
	o 1	o 2	o 3	o 4
5. I am less forceful in expressing opinions, making requests, and giving information		|		I am more forceful in expressing opinions, making requests, and giving direction
	o 1	o 2	o 3	o 4
6. I appear more reserved.		|		I appear more friendly
	o 1	o 2	o 3	o 4
7. I am less confrontive		|		I am more confrontive
	o 1	o 2	o 3	o 4
8. I dress more formally		|		I dress less formally
	o 1	o 2	o 3	o 4

9. I let others take the interpersonal initiative			I take the interpersonal initiative
o 1	o 2	o 3	o 4
10. I am more controlled in my expression of feelings			I am less controlled in my expression of feelings
o 1	o 2	o 3	o 4
11. I am "ask oriented"			I am "tell oriented"
o 1	o 2	o 3	o 4
12. I focus more on facts			I focus more on feelings
o 1	o 2	o 3	o 4
13. I make decisions slowly			I make decisions quickly
o 1	o 2	o 3	o 4
14. I appear more task oriented oriented than people oriented			I appear more people than task oriented
o 1	o 2	o 3	o 4
15. I try to avoid risk			I am a risk taker
o 1	o 2	o 3	o 4
16. I am less interested in small talk, anecdotes, and jokes			I am more interested in small talk, anecdotes, and jokes
o 1	o 2	o 3	o 4
17. I exert less pressure on others others for decisions			I exert more pressure on others for decisions
o 1	o 2	o 3	o 4

18. I make decisions based more on facts than feelings				I base decisions more on feelings than on facts
o 1	o 2	o 3	o 4	
19. I have less intense and consistent eye contact				I have more intense and consistent eye contact
o 1	o 2	o 3	o 4	
20. I demonstrate more discipline in my use of time				I demonstrate less discipline in my use of time
o 1	o 2	o 3	o 4	

Career Satisfaction

Please indicate the extent to which you agree or disagree with each of the following statements.

I am satisfied with the success I have achieved in my career.

o 5. Strongly disagree

o 4. Disagree to some extent

o 3. Uncertain

o 2. Agree to some extent

o 1. Strongly agree

I am satisfied with the progress I have made toward meeting my overall career goals.

o 5. Strongly disagree

o 4. Disagree to some extent

o 3. Uncertain

o 2. Agree to some extent

o 1. Strongly agree

I am satisfied with the progress I have made toward meeting my goals for income.

o 5. Strongly disagree

o 4. Disagree to some extent

o 3. Uncertain

o 2. Agree to some extent

o 1. Strongly agree

I am satisfied with the progress I have made toward meeting my goals for advancement.

o 5. Strongly disagree

o 4. Disagree to some extent

o 3. Uncertain

o 2. Agree to some extent

o 1. Strongly agree

I am satisfied the progress I have made toward meeting my goals for the development of new skills.

o 5. Strongly disagree

o 4. Disagree to some extent

o 3. Uncertain

o 2. Agree to some extent

o 1. Strongly agree

Thank you for your time.

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*The 20 Communication Style questions consist of the Behavioral Style Analysis® questionnaire, formerly known as Social Style Analysis (© 1998 by J. Darling, Rockhurst University, Kansas City, MO, used with permission).

APPENDIX E

TABLES

Table 1

Respondent Demographics, Age (N = 329)

Age	Frequency	Percent (%)
29-25	47	14.3
36-40	85	25.8
41-45	87	26.4
46-50	63	19.1
51-55	37	11.2
56-60	8	2.4
61+	2	0.6

Table 2

Respondent Demographics, Country of Birth (N=329)

Category	Frequency	Percent (%)
United States of America	303	92.1
Other	24	7.3
No response	2	0.6

Table 3

Respondent Demographics, Ethnicity (N = 329)

Category	Frequency	Percent (%)
Caucasian	283	86.0
Asian	12	3.7
Black	11	3.3
Other	15	4.6
No response	8	2.4

Table 4

Respondent Demographics, Years in Practice (N = 329)

Category	Frequency	Percent (%)
3-5 years	50	15.2
6-10 years	104	31.6
11-15 years	80	24.3
16-20 years	45	13.7
More than 20 years	50	15.2

Table 5

Respondent Demographics, Training (N = 329)

Category	Frequency	Percent (%)
Residency trained in emergency medicine	327	99.4
Not emergency medicine residency trained	2	0.6

Table 6

Respondent Demographics, Percentage of Paid Work Time Spent (N =329)

Category	Range	Minimum (%)	Maximum (%)	Mean (%)	Standard Deviation
Clinical practice	100	0	100	69.89	27.156
Teaching	70	0	70	8.05	10.300
Research	60	0	60	2.86	7.235
Administration	100	0	100	19.22	22.663

Table 7

Personality Style and Career Satisfaction (N =329)

Personality Style	N	Mean career satisfaction score	Standard Deviation	Standard Error	*p* > .05 lower bound	*p* > .05 upper bound
Analytical	63	3.921	0.965	0.122	3.678	4.164
Driver	112	4.055	0.875	0.8271E-02	3.891	4.219
Expressive	124	4.073	0.837	7.517E-02	3.924	4.221
Amiable	30	4.007	0.669	0.122	3.757	4.257
Total	329	4.032	0.861	4.746E-02	3.938	4.125

Table 8

Analysis of Variance for Career Satisfaction Score

	df	Mean Square	*F*	*p*
Between groups	3	0.355	0.477	0.698
Within groups	325	0.745		
Total	328			

Table 9

Social Styles of Emergency Physicians (N =329)

Style	Frequency	Percent (%)
Analytical	63	19.1
Driver	112	34.0
Expressive	124	37.7
Amiable	30	9.1

Table 10

Reliability Analysis of Social Style Scale (N =329)

Construct	Mean	Variance	SD	N of Items Tested	α
Assertiveness	27.1216	17.8205	4.2214	10	0.7143
Responsiveness	24.0729	20.3971	4.5163	10	0.7282
Entire scale	51.1945	47.7181	6.9078	20	0.7572

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